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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/828,203	04/09/2001	Toby Trevor Fury Mottram	604-589	3671

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EXAMINER

CYGAN, MICHAEL T

ART UNIT PAPER NUMBER

2855

DATE MAILED: 04/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/828,203

Applicant(s)

MOTTRAM ET AL.

Examiner

Michael Cygan

Art Unit

2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 February 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 24 February 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Mayer (US 4,852,389). With respect to apparatus claims, Mayer discloses the claimed invention, an apparatus comprising a measuring device [46] which measures the humidity of a sample gas, a device (Figure 4) which passes humidified air (from a carrier gas source) through a sensor chamber [44,47] containing an O<sub>2</sub> sensor. The device utilizes readings from humidity sensors [46,56] to adjust the relative humidities of the test and carrier gases to be substantially the same (column 13, lines 13-26). The device has a valve [28a, 28b] for admitting the sample gas into an upper sample chamber [42], where the sample gas then passes through a membrane into sensor chamber [44,47] containing the O<sub>2</sub> sensor. See entire document, especially Figures 4 and 5, and column 9, lines 5-38. Note that the valves [28a,28b] act to admit sample gas into the chamber while valve (WET, Figure 4) acts to isolate a humidified air source from the

sensor chamber; see especially column 9, lines 5-38 and column 11, lines 13-15.

2. Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Mottram (WO 97/00444). With respect to the method claims, Mottram discloses the claimed invention, a method for monitoring concentration of oxygen passed through a membrane comprising the steps of: measuring the sample gas humidity (by microprocessor [508]) while the sample gas is in a mixing chamber [507], providing a sensor chamber [514] containing a sensor array [517], adjusting the humidity of a calibration and purging medium flowing through the sensor chamber to be within a humidity range substantially the same as that of the sample gas, admitting sample gas into the sensor chamber, and monitoring the sensor output. The mixing chamber provides a source of gas at a selected humidity level. The microprocessor [508] controls the humidity of the contents of the mixing chamber (through a first humidity sensor) and the sensing chamber (through a second humidity sensor). Mottram discloses the use of olfactory sensors such as an electronic nose as the sensor array; see page 18, lines 13-22. See Figure 5; page 22, line 30 through page 23, line 18; and page 11, line 21 through page 12, line 5.

With respect to apparatus claims, Mottram discloses the claimed invention, an apparatus comprising a measuring device (humidity sensor

[502] or microprocessor [108]) for measuring the humidity of the sample gas, a device (Figure 5, including particularly numerals 506-515) for passing humidified air through a sensor chamber [514] containing sensor array [517] such that the sensor chamber is within a humidity range substantially the same as that of the sample gas, and a valve [505] for admitting sample gas towards the sensor chamber. Sample gas is enclosed by a chamber [501,506,507]. The mixing chamber provides a source of gas at a selected humidity level. The microprocessor [508] controls the humidity of the contents of the mixing chamber (through a first humidity sensor) and the sensing chamber (through a second humidity sensor). Mottram discloses the use of olfactory sensors such as an electronic nose as the sensor array; see page 18, lines 13-22. See Figure 5; page 22, line 30 through page 23, line 18; and page 11, line 21 through page 12, line 5.

Note that no ordering of the method steps is explicitly claimed; further note the pre-sample purging at page 11, lines 21+. Note that Mottram teaches a valve [512] to “control the relative proportions of dried and humidified gas reaching chamber 507”; see page 23, lines 9-10, thereby teaching isolation of the sensor chamber from the source [510] of humidified air; again note the pre-sample purging at page 11, lines 21+ which stops the flow of calibration/purge gas before sample gas is passed to the sensor array.

***Conclusion***

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
4. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

***Response to Arguments***

5. Applicant's arguments with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection. See particularly the last sentence of the rejection by Mayer, and the last paragraph of the rejection by Mottram.

Art Unit: 2855


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Cygan whose telephone number is 703-305-0846. The examiner can normally be reached on 8:30-6 M-Th, alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on 703-305-4816. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

MTL

Michael Cygan  
March 25, 2003

  
EDWARD LEFKOWITZ  
SUPERVISORY PATENT EXAMINER  
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